

458.75625	do	44	PX
458.7625	do	27	PX
458.76875	do	44	PX
458.775	do		PX
458.78125	do	44	PX
458.7875	do	27	PX
458.79375	do	44	PX
458.800	do		PX
458.80625	do	44	PX
458.8125	do	27	PX
458.81875	do	44	PX
458.825	do		PX
458.83125	do	44	PX
458.8375	do	27	PX
458.84375	do	44	PX
458.850	do		PX
458.85625	do	44	PX
458.8625	do	27	PX
458.86875	do	44	PX
458.875	do		PX
458.88125	do	44	PX
458.8875	do	27	PX
458.89375	do	44	PX
458.900	do		PX
458.90625	do	44	PX
458.9125	do	27	PX
458.91875	do	44	PX
458.925	do		PX
458.93125	do	44	PX
458.9375	do	27	PX
458.94375	do	44	PX
458.950	do		PX
458.95625	do	44	PX
458.9625	do	27	PX
458.96875	do	44	PX
458.975	do		PX
458.98125	do	44	PX
458.9875	do	27	PX
458.99375	do	44	PX
460.0125	do	27, 64	PP
460.01875	Base or mobile	44	PP
460.025	do		PP
460.03125	do	44	PP
460.0375	do	27	PP

460.04375	do	44	PP
460.050	do		PP
460.05625	do	44	PP
460.0625	do	27	PP
460.06875	do	44	PP
460.075	do		PP
460.08125	do	44	PP
460.0875	do	27	PP
460.09375	do	44	PP
460.100	do		PP
460.10625	do	44	PP
460.1125	do	27	PP
460.11875	do	44	PP
460.125	do		PP
460.13125	do	44	PP
460.1375	do	27	PP
460.14375	do	44	PP
460.150	do		PP
460.15625	do	44	PP
460.1625	do	27	PP
460.16875	do	44	PP
460.175	do		PP
460.18125	do	44	PP
460.1875	do	27	PP
460.19375	do	44	PP
460.200	do		PP
460.20625	do	44	PP
460.2125	do	27	PP
460.21875	do	44	PP
460.225	do		PP
460.23125	do	44	PP
460.2375	do	27	PP
460.24375	do	44	PP
460.250	do		PP
460.25625	do	44	PP
460.2625	do	27	PP
460.26875	do	44	PP
460.275	do		PP
460.28125	do	44	PP
460.2875	do	27	PP
460.29375	do	44	PP
460.300	do		PP
460.30625	do	44	PP
460.3125	do	27	PP

460.31875	do	44	PP
460.325	do		PP
460.33125	do	44	PP
460.3375	do	27	PP
460.34375	do	44	PP
460.350	do		PP
460.35625	do	44	PP
460.3625	do	27	PP
460.36875	do	44	PP
460.375	do		PP
460.38125	do	44	PP
460.3875	do	27	PP
460.39375	do	44	PP
460.400	do		PP
460.40625	do	44	PP
460.4125	do	27	PP
460.41875	do	44	PP
460.425	do		PP
460.43125	do	44	PP
460.4375	do	27	PP
460.44375	do	44	PP
460.450	do		PP
460.45625	do	44	PP
460.4625	do	27	PP
460.46875	do	44	PP
460.475	do		PP
460.48125	do	44	PP
460.4875	do	27	PP
460.49375	do	44	PP
460.500	do		PP
460.50625	do	44	PP
460.5125	do	27	PP
460.51875	do	44	PP
460.525	do		PP, PF, PM
460.53125	do	44	PP, PF, PM
460.5375	do	27	PP, PF, PM
460.54375	do	44	PP, PF, PM
460.550	do		PP, PF, PM
460.55625	do	44	PP, PF, PM
460.5625	do	27	PP, PF, PM
460.56875	do	44	PP, PF, PM
460.575	do		PF
460.58125	do	44	PF
460.5875	do	27	PF

460.59375	do	44	PF
460.600	do		PF
460.60625	do	44	PF
460.6125	do	27	PF
460.61875	do	44	PF
460.625	do		PF
460.63125	do	44	PF
460.6375	do	27	PF
460.64375	do	44	PF
462.9375	Mobile	57	PS
462.950	Base or mobile	38, 65	PM
462.95625	do	38, 44, 65	PM
462.9625	do	27, 38, 65	PM
462.96875	do	38, 44, 65	PM
462.975	do	38, 65	PM
462.98125	do	38, 44, 65	PM
462.9875	do	27, 38, 65	PM
462.99375	do	38, 44, 65	PM
463.000	do	59, 66, 67	PM
463.00625	do	44, 59, 66, 67	PM
463.0125	do	27, 59, 66, 67	PM
463.01875	do	44, 59, 66, 67	PM
463.025	do	59, 66, 67	PM
463.03125	do	44, 59, 66, 67	PM
463.0375	do	27, 59, 66, 67	PM
463.04375	do	44, 59, 66, 67	PM
463.050	do	59, 66, 67	PM
463.05625	do	44, 59, 66, 67	PM
463.0625	do	27, 59, 66, 67	PM
463.06875	do	44, 59, 66, 67	PM
463.075	do	59, 66, 76	PM
463.08125	do	44, 59, 66, 76	PM
463.0875	do	27, 59, 66, 76	PM
463.09375	do	44, 59, 66, 76	PM
463.100	do	59, 66, 76	PM
463.10625	do	44, 59, 66, 76	PM
463.1125	do	27, 59, 66, 76	PM
463.11875	do	44, 59, 66, 76	PM
463.125	do	59, 66, 76	PM
463.13125	do	44, 59, 66, 76	PM
463.1375	do	27, 59, 66, 76	PM
463.14375	do	44, 59, 66, 76	PM
463.150	do	59, 66, 76	PM
463.15625	do	44, 59, 66, 76	PM

463.1625	do	27, 59, 66, 76	PM
463.16875	do	44, 59, 66, 76	PM
463.175	do	59, 66, 76	PM
463.18125	do	44, 59, 66, 76	PM
463.1875	do	27, 59, 66, 76	PM
463.19375	do	44, 59, 66, 76	PM
465.0125	Mobile	57	PP
465.025	do		PP
465.03125	do	44	PP
465.0375	do	27	PP
465.04375	do	44	PP
465.050	do		PP
465.05625	do	44	PP
465.0625	do	27	PP
465.06875	do	44	PP
465.075	do		PP
465.08125	do	44	PP
465.0875	do	27	PP
465.09375	do	44	PP
465.100	do		PP
465.10625	do	44	PP
465.1125	do	27	PP
465.11875	do	44	PP
465.125	do		PP
465.13125	do	44	PP
465.1375	do	27	PP
465.14375	do	44	PP
465.150	do		PP
465.15625	do	44	PP
465.1625	do	27	PP
465.16875	do	44	PP
465.175	do		PP
465.18125	do	44	PP
465.1875	do	27	PP
465.19375	do	44	PP
465.200	do		PP
465.20625	do	44	PP
465.2125	do	27	PP
465.21875	do	44	PP
465.225	do		PP
465.23125	do	44	PP
465.2375	do	27	PP
465.24375	do	44	PP
465.250	do		PP

465.25625	do	44	PP
465.2625	do	27	PP
465.26875	do	44	PP
465.275	do		PP
465.28125	do	44	PP
465.2875	do	27	PP
465.29375	do	44	PP
465.300	do		PP
465.30625	do	44	PP
465.3125	do	27	PP
465.31875	do	44	PP
465.325	do		PP
465.33125	do	44	PP
465.3375	do	27	PP
465.34375	do	44	PP
465.350	do		PP
465.35625	do	44	PP
465.3625	do	27	PP
465.36875	do	44	PP
465.375	do		PP
465.38125	do	44	PP
465.3875	do	27	PP
465.39375	do	44	PP
465.400	do		PP
465.40625	do	44	PP
465.4125	do	27	PP
465.41875	do	44	PP
465.425	do		PP
465.43125	do	44	PP
465.4375	do	27	PP
465.44375	do	44	PP
465.450	do		PP
465.45625	do	44	PP
465.4625	do	27	PP
465.46875	do	44	PP
465.475	do		PP
465.48125	do	44	PP
465.4875	do	27	PP
465.49375	do	44	PP
465.500	do		PP
465.50625	do	44	PP
465.5125	do	27	PP
465.51875	do	44	PP
465.525	do		PP, PF, PM

465.53125	do	44	PP, PF, PM
465.5375	do	27	PP, PF, PM
465.54375	do	44	PP, PF, PM
465.550	Base or mobile		PP, PF, PM
465.55625	do	44	PP, PF, PM
465.5625	do	27	PP, PF, PM
465.56875	do	44	PP, PF, PM
465.575	Mobile		PF
465.58125	do	44	PF
465.5875	do	27	PF
465.59375	do	44	PF
465.600	do		PF
465.60625	do	44	PF
465.6125	do	27	PF
465.61875	do	44	PF
465.625	do		PF
465.63125	do	44	PF
465.6375	do	27	PF
465.64375	do	44	PF
467.9375	do	57	PS
467.950	do	38, 65	PM
467.95625	do	38, 44, 65	PM
467.9625	do	27, 38, 65	PM
467.96875	do	38, 44, 65	PM
467.975	do	38, 65	PM
467.98125	do	38, 44, 65	PM
467.9875	do	27, 38, 65	PM
467.99375	do	38, 44, 65	PM
468.000	do	59, 66, 67	PM
468.00625	do	44, 59, 66, 67	PM
468.0125	do	27, 59, 66, 67	PM
468.01875	do	44, 59, 66, 67	PM
468.025	do	59, 66, 67	PM
468.03125	do	44, 59, 66, 67	PM
468.0375	do	27, 59, 66, 67	PM
468.04375	do	44, 59, 66, 67	PM
468.050	do	59, 66, 67	PM
468.05625	do	44, 59, 66, 67	PM
468.0625	do	27, 59, 66, 67	PM
468.06875	do	44, 59, 66, 67	PM
468.075	do	59, 66, 76	PM
468.08125	do	44, 59, 66, 76	PM
468.0875	do	27, 59, 66, 76	PM
468.09375	do	44, 59, 66, 76	PM

468.100	do	59, 66, 76	PM
468.10625	do	44, 59, 66, 76	PM
468.1125	do	27, 59, 66, 76	PM
468.11875	do	44, 59, 66, 76	PM
468.125	do	59, 66, 76	PM
468.13125	do	44, 59, 66, 76	PM
468.1375	do	27, 59, 66, 76	PM
468.14375	do	44, 59, 66, 76	PM
468.150	do	59, 66, 76	PM
468.15625	do	44, 59, 66, 76	PM
468.1625	do	27, 59, 66, 76	PM
468.16875	do	44, 59, 66, 76	PM
468.175	do	59, 66, 76	PM
468.18125	do	44, 59, 66, 76	PM
468.1875	do	27, 59, 66, 76	PM
468.19375	do	44, 59, 66, 76	PM
470 to 512	Base or mobile	68	PX
806 to 824	Mobile	69	
851 to 859	Base or mobile	69	
928 and above	Operational fixed	70	
929 to 930	Base only	71	
1,427 to 1,435	Operational fixed,	72	
	base, or mobile		
2,450 to 2,500	Base or mobile	73	
10,550 to 10,680	do	74	

(d) Explanation of assignment limitations appearing in the frequency table of paragraph (c)(3) of this section:

(1) This frequency is available for use by Travelers' Information Stations in accordance with § 90.242.

(2) The frequency is available for assignment only in accordance with a geographical assignment plan.

(3) Base stations operating on this frequency and rendering service to state police mobile units may be authorized to use a maximum output power in excess of the maximum indicated in § 90.205 but not in excess of 7500 watts: Provided, That such operation is secondary to other stations.

(4) The use of this frequency is on a secondary basis to any Canadian station.

(5) In addition to base and mobile stations, this frequency may be assigned to fixed stations on a secondary basis to base or mobile stations. Upon a showing of need, the use of

a second frequency in the band 2505-3500 kHz may be made available to governmental entities through appropriate arrangements with Federal Government agencies for restricted area use on a shared basis with maximum power output, emission, and hours of operation determined on the basis of the technical conditions involved in using the selected frequency in the particular area.

(6) Only the central governments of the fifty individual States, the District of Columbia, and the insular areas of the Commonwealth of the Northern Mariana Islands, the Commonwealth of Puerto Rico, and the unincorporated territories of American Samoa, Guam and the United States Virgin Islands are eligible to be licensed to use this spectrum, and then only for disaster communications purposes. Licensees may not use this spectrum to provide operational communications circuits. See also, § 90.264.

(7) This frequency is shared with the Industrial/Business Pool.

(8) This frequency is available for assignment only in accordance with a geographical assignment plan. This frequency may be used for conservation activities on a secondary basis to any station using the frequency for forest fire prevention, detection, and suppression.

(9) This frequency is reserved primarily for assignment to state licensees. Assignments to other licensees will be made only where the frequency is required for coordinated operation with the State system to which the frequency is assigned. Any request for such assignment must be supported by a statement from the State system concerned, indicating that the assignment is necessary for coordination of activities.

(10) A licensee regularly conducting two-way communication operations on this frequency may, on a secondary basis, also transmit one-way alert-paging signals to ambulance and rescue squad personnel.

(11) The maximum output power of any transmitter authorized to operate on this frequency shall not exceed 10 watts.

(12) This frequency is available in this service only to persons eligible under the provisions of paragraph (a)(v) of this section for operation of transmitters having a maximum power output of three watts using A1A, A1D, A2B, A2D, F1B, F1D, F2B, F2D, G1B, G1D, G2B, or G2D emission. This frequency is also available in the Industrial/Business Pool on a co-equal basis with the Public Safety licensees.

(13) This frequency will be assigned only for one-way paging communications to mobile receivers. Transmissions for the purpose of activating or controlling remote objects on this frequency are not authorized.

(14) The maximum output power of any transmitter authorized to operate on this frequency, after June 1, 1956, shall not exceed two watts. Licensees holding a valid

authorization as of June 1, 1956, for base or mobile station operation on this frequency, with a power in excess of two watts, may continue to be authorized for such operation without regard to this power limitation.

(15) This frequency is reserved for assignment to stations for intersystem operations only: Provided, however, That licensees holding a valid authorization to use this frequency for local base or mobile operations as of June 1, 1956, may continue to be authorized for such use.

(16) This frequency is reserved primarily for assignment to state police licensees. Assignments to other police licensees will be made only where the frequency is required for coordinated operation with the state police system to which the frequency is assigned. Any request for such assignment must be supported by a statement from the state police system concerned indicating that the assignment is necessary for coordination of police activities.

(17) In the State of Alaska only, the frequency 42.40 MHz is available for assignment on a primary basis to stations in the Common Carrier Rural Radio Service utilizing meteor burst communications. The frequency may be used by private radio stations for meteor burst communications on a secondary, noninterference basis. Usage shall be in accordance with part 22 or part 90 of this Chapter. Stations utilizing meteor burst communications shall not cause harmful interference to stations of other radio services operating in accordance with the allocation table.

(18) No new licenses will be granted for one-way paging under § 90.487 for use on this frequency after August 1, 1980. This frequency is available to persons eligible for station licenses under the provisions of (a)(v) on a co-equal basis with one-way paging users under § 90.487 prior to August 1, 1985, and on a primary basis after August 1, 1985. Only A1A, A1D, A2B, A2D, F1B, F1D, F2B, F2D, G1B, G1D, G2B, G2D emissions and power not exceeding 10 watts will be authorized. Antennas having gain greater than 0 dBd will not be authorized. Transmissions shall not exceed two seconds duration.

(19) This frequency is reserved for assignment to stations in this service for intersystem operations only and these operations must be primarily base-mobile communications.

(20) In the State of Alaska only, the frequency 45.90 MHz is available for assignment on a primary basis to private land mobile radio stations utilizing meteor burst communications. The frequency may be used by common carrier stations for meteor burst communications on a secondary, noninterference basis. Usage shall be in accordance with part 22 and part 90 of this Chapter. Stations utilizing meteor burst communications shall not cause harmful interference to stations of other radio services operating in accordance with the allocation table.

(21) This frequency will be assigned only in accordance with a geographical assignment plan and is reserved primarily for assignment to Highway maintenance systems operated by states. The use of this frequency by other Highway maintenance licensees will be authorized only where such use is necessary to coordinate activities with the particular state to which the frequency is assigned. Any request for such use must be supported by a statement from the state concerned.

(22) Notwithstanding the provisions of limitation (21) above, this frequency may be used by any licensees in the Public Safety Pool without a separate license for the purpose of operating self-powered vehicle detectors for traffic control and safety purposes, on a secondary basis, in accordance with § 90.269 of this chapter.

(23) This frequency is reserved for assignment only to national organizations eligible for disaster relief operations under paragraph (a)(vii) of this section.

(24) Assignment and use of frequencies in the band 72-76 MHz are governed by § 90.257 for operational-fixed stations and by § 90.241 for emergency call box operations. Specific frequencies are listed at § 90.257(a)(1).

(25) This frequency is available to Public Safety Pool licensees for fire call box operations on a shared basis in Industrial/Business Pool. All communications on this frequency must be conducted with persons or organizations charged with specific fire protection responsibility. All operations on this frequency are subject to the provisions of § 90.257(b).

(26) Assignment of frequencies in this band are subject to the provisions of § 90.173. Licensees as of August 18, 1995 who operate systems in the 150-170 MHz band that are 2.5 kHz removed from regularly assignable frequencies may continue to operate on a secondary, non-interference basis after August 1, 2003.

(27) This frequency will be assigned with an authorized bandwidth not to exceed 11.25 kHz. In the 450-470 MHz band, secondary telemetry operations pursuant to § 90.238(e) will be authorized on this frequency.

(28) This frequency is not available for assignment in this service in Puerto Rico or the Virgin Islands.

(29) This frequency is removed by 22.5 kHz from frequencies assigned to other radio services. Utilization of this frequency may result in, as well as be subject to, interference under certain operating conditions. In considering the use of this frequency, adjacent channel operations should be taken into consideration. If interference occurs, the licensee may be required to take the necessary steps to resolve the problem. See § 90.173(b).

(30) This frequency will be authorized a channel bandwidth of 25 kHz.

(31) The maximum output power of any transmitter authorized to operate on this frequency shall not exceed 100 watts. Stations authorized prior to July 15, 1992 for fixed operations will be permitted to continue such operations, but at a maximum transmitter power output of 10 watts.

(32) The maximum effective radiated power (ERP) may not exceed 20 watts for fixed stations and 2 watts for mobile stations. The height of the antenna system may not exceed 15.24 meters (50 ft.) above ground. All such operation is on a secondary basis to adjacent channel land mobile operations.

(33) For FM transmitters, the sum of the highest modulating frequency in Hertz and the amount of the frequency deviation or swing in Hertz may not exceed 2800 Hz and the maximum deviation may not exceed 2.5 kHz. For AM transmitters, the highest modulation frequency may not exceed 2000 Hz. The carrier frequency must be maintained within .0005 percent of the center of the frequency band, and the authorized bandwidth may not exceed 6 kHz.

(34) This frequency is available on a shared basis with the Industrial/Business Pool for remote control and telemetry operations.

(35) Operational fixed stations must employ directional antennas having a front-to-back ratio of at least 20 dB. Omnidirectional antennas having unity gain may be employed for stations communicating with at least three receiving locations separated by 160 degrees of azimuth.

(36) The maximum power output of the transmitter may not exceed 50 watts for fixed stations and 1 watt for mobile stations. A1A, A1D, A2B, A2D, F1B, F1D, F2D, G1B, G1D, G2B, or G2D emission may be authorized.

(37) Use of this frequency is limited to stations located at least 120.7 km (75 miles) from the center of any urbanized area of 200,000 or more population (U.S. Census of Population 1970). Operation is on a secondary basis to licensees of the Industrial/Business Pool.

(38) A licensee regularly conducting two-way communications operations on this frequency may, on a secondary basis, also transmit one-way alert-paging signals to ambulance and rescue squad personnel.

(39) In addition to other authorized uses, the use of F1B, F1D, F2B or F2D emission is permitted on this frequency for the operation of biomedical telemetry systems except in the following geographic locations:

(i) New York, N.Y.-Northeastern New Jersey; Los Angeles-Long Beach, Calif.; Chicago, Ill.-Northwestern Indiana; Philadelphia, Pa.-N.J.; Detroit, Mich.; San

Francisco-Oakland, Calif.; Boston, Mass.; Washington, D.C.-Md.-Va.; Cleveland, Ohio; St. Louis, Mo.-Ill.; Pittsburgh, Pa.; Minneapolis-St. Paul, Minn.; Houston, Tex.; Baltimore, Md.; Dallas, Tex.; Milwaukee, Wis.; Seattle-Everett, Wash.; Miami, Fla.; San Diego, Calif.; Atlanta, Ga.; Cincinnati, Ohio-Ky.; Kansas City, Mo.-Kans.; Buffalo, N.Y.; Denver, Colo.; San Jose, Calif.; New Orleans, La.; Phoenix, Ariz.; Portland, Oreg.-Wash.; Indianapolis, Ind.; Providence-Pawtucket-Warwick, R.I.-Mass.; Columbus, Ohio; San Antonio, Tex.; Louisville, Ky.-Ind.; Dayton, Ohio; Fort Worth, Tex.; Norfolk-Portsmouth, Va.; Memphis, Tenn.-Miss.; Sacramento, Calif.; Fort Lauderdale-Hollywood, Fla.; Rochester, N.Y.; Tampa-St. Petersburg, Fla.

(ii) The continuous carrier mode of operation may be used for telemetry transmissions on this frequency for periods up to two-minutes duration; following which there must be a break in the carrier for at least a one-minute period.

(iii) Geographical coordinates for the above-listed urbanized areas may be found at Table 1 of § 90.635.

(40) This frequency may be designated by common consent as an intersystem mutual assistance frequency under an area-wide medical communications plan.

(41) This frequency is available nationwide for use in police emergency communications networks operated under statewide law enforcement emergency communications plans.

(42) This frequency may not be assigned within 161 km (100 miles) of New Orleans (coordinates 29° 56' 53" N and 90° 04' 10" W).

(43) This frequency is reserved for assignment for use in highway maintenance systems operated by licenses other than States.

(44) This frequency will be assigned with an authorized bandwidth not to exceed 6 kHz.

(45) Operations on this frequency are limited to 30 watts transmitter output power.

(46) This frequency is shared with the Industrial/Business Pool in Puerto Rico and the Virgin Islands.

(47) This frequency may be assigned to stations in the Public Safety Pool, only at points within 240 km. (150 mi.) of New York, N.Y.

(48) Frequencies in this band will be assigned for low power wireless microphones in accordance with the provisions of § 90.265.

(49) This frequency will be assigned only to licensees directly responsible for the prevention, detection, and suppression of forest fires, on a secondary basis to any U.S. Government station.

(50) This frequency will be assigned for use only in areas west of the Mississippi River.

(51) This frequency will be assigned for use only in areas east of the Mississippi.

(52) In addition to agencies responsible for forest fire prevention, detection, and suppression, this frequency may be assigned to conservation agencies which do not have forest fire responsibilities on a secondary basis to any U.S. Government stations, *Provided*, That such assignment is necessary to permit mobile relay operation by such agencies.

(53) This frequency is subject to the provisions of paragraph (e)(6) of this section.

(54) For FM transmitters, the sum of the highest modulating frequency in hertz and the amount of the frequency deviation or swing in hertz may not exceed 1700 Hz and the maximum deviation may not exceed 1.2 kHz. For AM transmitters, the highest modulating frequency may not exceed 1200 Hz. The carrier frequency must be maintained within .0005 percent of the center of the frequency band, and the authorized bandwidth may not exceed 3 kHz.

(55) Subpart T contains rules for assignment of frequencies in the 220-222 MHz band.

(56) The frequencies available for use at fixed stations in this band and the requirements for assignment are set forth in § 90.261. Operation on these frequencies is secondary to stations in the Industrial/Business Pool where they are assigned for land mobile operations.

(57) This frequency is available for systems first licensed prior to August 18, 1995. No new systems will be authorized after August 18, 1995, but prior authorized systems may be modified, expanded, and renewed.

(58) This frequency is available for systems first licensed prior to March 31, 1980, for radio call box communications related to safety on highways in accordance with the provisions of § 90.241(c). No new systems will be authorized of this nature, but systems authorized prior to March 31, 1980 may be modified, expanded, and renewed.

(59) The continuous carrier mode of operation may be used for telemetry transmission on this frequency.

(60) Paging licensees as of March 20, 1991, may continue to operate on a primary basis until January 14, 1998.

(61) Highway radio call box operations first licensed prior to March 31, 1980 on this frequency may continue to operate in accordance with limitation 58 above.

(62) This frequency is also authorized for use for operations in biomedical telemetry stations. FIB, FID, F2B, F2D, F3E, G1B, G1D, G2B, G2D, and G3E emissions may be authorized for bio-medical transmissions.

(63) Available for medical services mobile operations in the Public Safety Pool in accordance with Limitation 61 above.

(64) Use of this frequency is on a secondary basis and subject to the provisions of 90.267(a)(3), (a)(4), (a)(5), and (a)(7).

(65) This frequency is primarily authorized for use in the dispatch of medical care vehicles and personnel for the rendition or delivery of medical services. This frequency may also be assigned for intra-system and inter-system mutual assistance purposes. For uniformity in usage these frequency pairs may be referred to by channel name as follows:

Frequencies base and mobile (Megahertz)	Mobile only (MHz)	Channel name
462.950	467.950	MED-9
462.95625	467.95625	MED-91
462.9625	467.9625	MED-92
462.96875	467.96875	MED-93
462.975	467.975	MED-10
462.98125	467.98125	MED-101
462.9875	467.9875	MED-102
462.99375	467.99375	MED-103

(66) For applications for new radio systems, the thirty-two frequency pairs listed in paragraph (d)(66)(i) of this section will be assigned in a block for shared operation under § 90.20(a)(1)(iii) or § 90.20(a)(2)(xiii) subject to the following:

(i) For uniformity in usage, these frequency pairs may be referred to by channel name as follows:

Frequencies base and mobile (Megahertz)	Mobile only (MHz)	Channel name
463.000	468.000	MED-1
463.00625	468.00625	MED-11
463.0125	468.0125	MED-12
463.01875	468.01875	MED-13
463.025	468.025	MED-2
463.03125	468.03125	MED-21
463.0375	468.0375	MED-22
463.04375	468.04375	MED-23
463.050	468.050	MED-3
463.05625	468.05625	MED-31
463.0625	468.0625	MED-32
463.06875	468.06875	MED-33
46.075	46.075	MED-4
463.08125	468.08125	MED-41
463.0875	468.0875	MED-42
463.09375	468.09375	MED-43
463.100	468.100	MED-5
463.10625	468.10625	MED-51
463.1125	468.1125	MED-52
463.11875	468.11875	MED-53
463.125	468.125	MED-6
463.13125	468.13125	MED-61
463.1375	468.1375	MED-62

Frequencies base and mobile (Megahertz)	Mobile only (MHz)	Channel name
463.14375	468.14375	MED-63
463.150	468.150	MED-7
463.15625	468.15625	MED-71
463.1625	468.1625	MED-72
463.16875	468.16875	MED-73
463.175	468.175	MED-8
463.18125	468.18125	MED-81
463.1875	468.1875	MED-82
463.19375	468.19375	MED-83

(ii) Except as provided in paragraphs (d)(66) (iii) and (iv) of this section, mobile or portable stations must employ equipment that is both wired and equipped to transmit/receive, respectively, on each of these MED frequency pairs with transmitters operated on the 468 MHz frequencies.

(iii) Portable (hand-held) units operated with a maximum output power of 2.5 watts are exempted from the multi-channel equipment requirements specified in paragraph (d)(66)(ii) in this section.

(iv) Stations located in areas above line A, as defined in § 90.7 will be required to meet multi-channel equipment requirements only for those frequencies up to the number specified in paragraph (d)(66)(ii) of this section that have been assigned and coordinated with Canada in accordance with the applicable U.S.-Canada agreement.

(67) This frequency is authorized for use only for operations in biomedical telemetry stations. F1B, F1D, F2B, F2D, F3E, G1B, G1D, G2B, G2D and G3E emissions may be authorized. Entities eligible in the Public Safety Pool may use this frequency on a secondary basis for any other permissible communications consistent with § 90.20(a)(1)(iii) or § 90.20(a)(2)(xiii).

(68) Subpart L contains rules for assignment of frequencies in the 470-512 MHz band.

(69) Subpart S contains rules for assignment of frequencies in the 806-824 MHz and 851-869 MHz bands.

(70) Assignment of frequencies above 928 MHz for operational-fixed stations is governed by part 94 of this Chapter.

(71) Frequencies in this band are available only for one-way paging operations in accordance with § 90.494.

(72) This frequency band is available to stations in this service subject to the provisions of § 90.259.

(73) Available only on a shared basis with stations in other services, and subject to no protection from interference due to the operation of industrial, scientific, or medical (ISM) devices. In the 2483.5-2500 MHz band, no applications for new stations or modification to existing stations to increase the number of transmitters will be accepted. Existing licensees as of July 25, 1985, or on a subsequent date following as a result of submitting an application for license on or before July 25, 1985, are grandfathered and their operation is co-primary with the Radiodetermination Satellite Service.

(74) This band is available for Digital Termination Systems and for associated internodal links in the Point-to-Point Microwave Radio Service. No new licenses will be issued under this subpart but current licenses will be renewed.

(75) Appropriate frequencies in the band 2000-3000 kHz which are designated in part 80 of this chapter as available to Public Ship Stations for telephone communications with Public Coast Stations may be assigned on a secondary basis to fixed Stations in the Public Safety Pool for communication with Public Coast Stations only, provided such stations are located in the United States and the following conditions are met:

(i) That such fixed station is established pursuant to the eligibility provisions of [§ 90.47] and that the isolated area involved is an island or other location not more than 480 km (300 statute miles) removed from the desired.

(ii) That evidence is submitted showing that an arrangement has been made with the coast station licensee for the handling of emergency communications permitted by § 80.453 and § 90.20(a)(2)(x)(C) of this chapter.

(iii) That operation of the Public Safety fixed station shall at no time conflict with any provision of part 80 of this chapter and further, that such operation in general shall

conform to the practices employed by Public Ship Stations for radiotelephone communication with the same Public Coast Station.

(76) This frequency is authorized only for communications between medical facilities vehicles and personnel related to medical supervision and instruction for the treatment and transport of patients in the rendition or delivery of medical services. F1B, F1D, F2B, F2D, G1B, G1D, G2B, F3E and G3E emissions are authorized. Public Safety entities may use this frequency on a secondary basis for any other permissible communications consistent with § 90.20(a)(1)(iii) or § 90.20(a)(2)(xiii).

(e) *Additional frequencies available.* In addition to the frequencies shown in the frequency table of this section, the following frequencies are available in this service. (See also § 90.253.)

(1) Substitution of frequencies available below 25 MHz may be made in accordance with the provisions of § 90.263.

(2) Frequencies in the band 73.0-74.6 MHz may be assigned to stations authorized their use on or before December 1, 1961, but no new stations will be authorized in this band, nor will expansion of existing systems be permitted. See also § 90.257.

(3) The frequency bands 31.99 to 32.00 MHz, 33.00 to 33.01 MHz, 33.99 to 34.00 MHz, 37.93 to 38.00 MHz, 39.00 to 39.01 MHz, 39.99 to 40.00 MHz and 42.00 to 42.01 MHz, are available for assignment for developmental operation subject to the provisions of subpart Q.

(4) Frequencies in the 421-430 MHz band are available in the Detroit, Cleveland, and Buffalo areas in accordance with the rules in §§ 90.273 through 90.281.

(5) A Police licensee may use transmitters on the frequencies indicated below in connection with official police activities without specific authorization from the Commission, provided that such use shall be on a secondary basis and shall not cause harmful interference to services of other licensees operating on regularly assigned frequencies, and further provided that all such use complies with the requirements of Federal, State and local laws. The provisions of § 90.429 of this part shall not apply to transmitters authorized under this subparagraph. To be eligible for operations in this manner, the transmitter must comply with all of the following requirements.

(i) In accordance with § 90.203 of this part and § 2.803 of part 2 of this Chapter, the transmitter must be of a type which has been type accepted by the Commission.

(ii) The carrier frequency shall be within the bands of

30.85-30.87 MHz
30.89-30.91 MHz
30.93-30.95 MHz
30.97-30.99 MHz
31.01-31.03 MHz
31.05-31.07 MHz
31.09-31.11 MHz
31.13-31.15 MHz
31.17-31.19 MHz
31.21-31.23 MHz
31.25-31.27 MHz
31.29-31.31 MHz
31.33-31.35 MHz
31.37-31.39 MHz
31.41-31.43 MHz
31.45-31.47 MHz
31.49-31.51 MHz
31.53-31.55 MHz
31.57-31.59 MHz
31.61-31.63 MHz
31.65-31.67 MHz
31.69-31.71 MHz
31.73-31.75 MHz
31.77-31.79 MHz
31.81-31.83 MHz
31.85-31.87 MHz
31.89-31.91 MHz
31.93-31.95 MHz
31.97-32.00 MHz
33.00-33.03 MHz
33.05-33.07 MHz
33.41-34.00 MHz
37.00-37.43 MHz
37.89-38.00 MHz
39.00-40.00 MHz
42.00-42.91 MHz
44.61-45.91 MHz
45.93-45.95 MHz

45.97-45.99 MHz
46.01-46.03 MHz
46.05-46.60 MHz
47.00-47.41 MHz
150.995-151.490 MHz
153.740-154.445 MHz
154.635-155.195 MHz
155.415-156.250 MHz
158.715-159.465 MHz
453.0125-453.9875 MHz
458.0125-458.9875 MHz
460.0125-460.5125 MHz
460.5625-460.6375 MHz
462.9375-462.9875 MHz
465.0125-465.5125 MHz
465.5625-465.6375 MHz
467.9375-467.9875 MHz

and must be maintained within 0.005 percent of the frequency of operation. Use on assigned channel center frequencies is not required.

(iii) The emitted signal shall be non-voice modulation (type PO emission).

(iv) The maximum occupied bandwidth, containing 99 percent of the radiated power, shall not exceed 2.0 kHz.

(v) The transmitter output power shall not exceed a mean power of 30 mW nor shall any peak exceed 1 watt peak power, as measured into a 50 ohm resistive load. Should the transmitter be supplied with a permanently attached antenna or should the transmitter and antenna combination be contained in a sealed unit, the following standard may be used in lieu of the above: the field strength of the fundamental signal of the transmitter and antenna combination shall not exceed 0.4 V/m mean or 2.3 V/m peak when measured at a distance of 3 meters.

(vi) The transmitter shall contain positive means to limit the transmission time to no more than 10 days. In the event of a malfunction of this positive means, the transmitter signal shall cease. The use of battery life to accomplish the transmission time limitation is permissible.

(6) The frequency 173.075 MHz is available for stolen vehicle recovery systems on a shared basis with the Federal Government. Stolen vehicle recovery systems are limited to recovering stolen vehicles and are not authorized for general purpose vehicle tracking or monitoring. Mobile transmitters operating on this frequency are limited to 2.5 watts power output and base transmitters are limited 300 watts ERP. F1D and F2D emissions may be used within a maximum authorized 20 kHz bandwidth. Transmissions from mobiles shall be limited to 200 milliseconds every 10 seconds, except that when a vehicle is being tracked actively, transmissions may be increased to 200 milliseconds every second. Transmissions from base stations will be limited to a total time of 1 second every minute. Applications for base stations operating on this frequency shall require coordination with the Federal Government. Applicants shall perform an analysis for each base station located within 169 km (105 miles) of a TV channel 7 transmitter of potential interference to TV channel 7 viewers. Such stations will be authorized if the applicant has limited the interference contour to fewer than 100 residences or if the applicant:

(i) Shows that the proposed site is the only suitable location;

(ii) Develops a plan to control any interference caused to TV reception from the operations; and

(iii) Agrees to make such adjustments in the TV receivers affected as may be necessary to eliminate interference caused by its operations. The licensee must eliminate any interference caused by its operation to TV channel 7 reception within 30 days of the time it is notified in writing by the Commission. If this interference is not removed within the 30-day period, operation of the base station must be discontinued. The licensee is expected to help resolve all complaints of interference.

(f) *Limitation on number of frequencies assignable.* Normally only two frequencies or pairs of frequencies in the paired frequency mode of operation will be assigned for mobile service operations by a single applicant in a given area. The assignment of an additional frequency or pair of frequencies will be made only upon a satisfactory showing of need, except that:

(1) Additional frequencies above 25 MHz may be assigned in connection with the operation of mobile repeaters in accordance with s 90.247 notwithstanding this limitation.

(2) The frequency 39.06 MHz may be assigned notwithstanding this limitation.

(3) Frequencies in the 25-50 MHz, 150-170 MHz, 450-512 MHz and 902-928 MHz bands may be assigned for the operation of Location and Monitoring Service (LMS) systems in accordance with the provisions of subpart M of this part, notwithstanding this limitation.

(4) A licensee of a radio station in the Public Safety Radio Pool may operate radio units for the purpose of determining distance, direction, speed, or position by means of a radiolocation device on any frequency available for radiolocation purposes without specific authorization from the Commission, provided type accepted equipment or equipment authorized pursuant to §§ 90.203(b)(4) and (5) is used and all other rule requirements are satisfied.

(5) A Police licensee may use, without special authorization from the Commission, any mobile service frequency between 40 and 952 MHz, listed in paragraph (c)(3) of this section, for communications in connection with physical surveillance, stakeouts, raids, and other such activities. Such use shall be on a secondary basis to operations of licensees regularly authorized on the assigned frequencies. The maximum output power that may be used for such communications is 2 watts. Transmitters, operating under this provision of the Rules, shall be exempted from the station identification requirements of § 90.425. Use of frequencies not designated by a "PP" in the coordinator column of the frequency table in paragraph (c)(3) of this section, is conditional on the approval of the coordinator corresponding to each frequency. Spread spectrum transmitters may be operated on Public Safety Pool frequencies between 37 and 952 MHz, providing that they are type accepted by the Commission under the provisions of §§ 2.803 and 90.203 of the Rules, and meet the following conditions:

(i) Frequency hopping transmitters can be operated, with a maximum output power of 2 watts, on any Public Safety Pool frequency between 37 and 952 MHz listed in paragraph (c)(3) of this section. At least 20 hopping frequencies shall be used and the average time of occupancy on any frequency shall not be greater than 1/10 second in every 2 seconds;

(ii) Use of spread spectrum transmitters under this section of the Rules is subject to approval by the applicable frequency coordinator of the radio services of the district in which the license and equipment are to be used.

(iii) The use of direct sequence spread spectrum equipment is also permitted. Equipment must meet the technical standards of 47 C.F.R. § 15.247.

(6) In addition to the frequencies assigned for mobile service operation, one base station frequency above 152 MHz may be assigned as a common frequency to all licensees in a particular area to permit intersystem communication between base stations or mobile stations

or both. This frequency use will not be authorized in any area where all available frequencies are required for independent systems.

(7) A licensee may use, without a specific authorization from the Commission, transmitters on the frequencies indicated below in connection with wildlife tracking and/or telemetry and in connection with official forestry-conservation activities, provided that such use shall be on a secondary basis and shall not cause harmful interference to services of other licensees operating on regularly assigned frequencies. The provisions of § 90.203, § 90.425, and § 90.429 of this part shall not apply to transmitters complying with this subparagraph. To be eligible for operations in this manner, the transmitter must comply with all of the following requirements.

(i) The carrier frequency shall be within the bands of:

(MHz)	
31.17 to 31.19	31.85 to 31.87
31.21 to 31.23	31.89 to 31.91
31.25 to 31.27	31.93 to 31.95
31.29 to 31.31	31.97 to 31.99
31.33 to 31.35	44.63 to 44.65
31.37 to 31.39	44.67 to 44.69
31.41 to 31.43	44.71 to 44.73
31.45 to 31.47	44.75 to 44.77
31.49 to 31.51	44.79 to 44.81
31.53 to 31.55	44.83 to 44.85
31.57 to 31.59	44.87 to 44.89
31.61 to 31.63	44.91 to 44.93
31.65 to 31.67	44.95 to 44.97
31.69 to 31.71	44.99 to 45.01
31.73 to 31.75	45.03 to 45.05
31.77 to 31.79	151.145 to 151.475
31.81 to 31.83	159.225 to 159.465

The carrier frequency must be maintained within 0.005 percent of the frequency of operation. Use on assigned channel center frequencies is not required.

(ii) The emitted signal shall be non-voice modulation (A1D, A2D, F1D, or F2D emission).

(iii) The maximum occupied bandwidth, containing 99 percent of the radiated power, shall not exceed 0.25 kHz.

(iv) The transmitter output power shall not exceed a mean power of 5 mW nor shall any peak exceed 100 mW peak power, as measured into a permanently attached antenna; or if the transmitter and antenna combination are contained in a sealed unit, the field strength of the fundamental signal of the transmitter and antenna combination shall not exceed 0.29 V/m mean or 1.28 V/m peak when measured at a distance of 3 meters.

(v) The requirements of § 90.175 regarding frequency coordination apply.

(8) An additional frequency may be assigned for paging operations from those frequencies available under paragraph (d)(13) of this section.

(9) The frequency 155.340 MHz may be assigned as an additional frequency when it is designated as a mutual assistance frequency as provided in paragraph (d)(40) of this section.

(10) Additional frequencies may be assigned for fixed station operations.

(11) The assignment of an additional frequency or frequencies may be authorized notwithstanding this limitation for common, intra-county, intra-fire-district, or intrastate fire coordination operations. The frequency or frequencies requested must be in accordance with a frequency utilization plan, for the area involved, on file with the Commission.

§ 90.22 Paging operations.

Paging operations may be authorized in this service only on frequencies assigned under the provisions of §§ 90.20(d)(10), (13), (60), and (72). Paging operations on other frequencies authorized before August 15, 1974, may be continued only if they do not cause harmful interference to regular operations on the same frequencies. Such paging operations may be renewed indefinitely on a secondary basis to regular operations, except within 125 kilometers (75 mi.) of the following urbanized areas:

Urbanized area	North latitude	West longitude
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